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(54) Title: INCENTIVE DELIVERY AND NOTIFICATION SYSTEM AND METHOD		
(57) Abstract  A system and method for gathering consumer preference information about a particular product or brand wherein an incentive indicator is displayed on a web page if an incentive is available to the user for a particular product.		

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## INCENTIVE DELIVERY AND NOTIFICATION SYSTEM AND METHOD

### Related Co-Pending Applications

This application claims priority, under 35 USC § 120, of US Provisional Patent Application No. 60/109,984 filed November 25, 1998 which is incorporated herein by reference.

### Background of the Invention

This invention relates generally to a system and method for delivering and notifying a user of an incentive or promotion on a desktop device.

With the explosion of the Internet and the World Wide Web, companies have created different methods and techniques for presenting advertising information to the user that is viewing the Web page. In fact, many Web-based companies generate on the revenue from showing advertisements to a user. There are numerous advertisement delivery and tracking systems and methods that deliver advertisements to a user and then track 1) the number of users that see the advertisement; and 2) the number of users that click on the advertisement displayed and go to the site as directed by the advertisement. Typically, a web site owner may receive different amounts of money depending on whether the user simply views the advertisement or clicks on the advertisement (known as "click-through"). In a typical Web page, the advertisements are displayed as banners that typically appear at the top of the Web page being displayed.

Most Web pages desire to change the advertisement being shown to the user and make the advertisement somewhat targeted to the individual user so that the user may view an advertisement that may be of interest to the user. The Web site owner may receive a larger amount of money for a targeted advertisement. For example, in

5       the context of a Web search engine where a user may enter one or more search terms of a search query into a hypertext markup language (HTML) form, the one or more search terms may be captured as a clickstream and communicated to an advertisement server.

The advertisement server receives the search terms and then select an advertisement banner from a database to display to the particular user based on the search terms. For

10      example, a user that enters the search term "Volkswagen" may be shown a banner advertisement for a on-line car purchasing or on-line car financing Web site. If the user then click on the banner advertisement, the user is shown the Web site of the company being advertised in the banner advertisement.

It is desirable to provide a system and method that permits incentives and

15      promotions to be delivered to a Web site and permits the user to be notified of an incentive or promotion based on different user's actions with respect to a product. None of the conventional systems permits an incentive to be displayed to the user based on a user's choice of products. Thus, it is desirable to provide an incentive delivery and notification system and method and it is to this end that the present

20      invention is directed.

Summary of the Invention

The incentive system and method in accordance with the invention may permit a promotion to be displayed to the user only when the user has selected a product with an incentive. In more detail, the user may browse a Web page with various products and may select a sub-set of products to review. When the user selects a sub-set of 5 products to review, the Web site may generate a clickstream including information about the products being viewed by the user and communicate the information to the incentive delivery and notification system. The incentive delivery and notification system may, in response to the information about the products being reviewed, search a promotion database that maps a particular product to a particular incentive. For 10 products that have an associated incentive, the system may generate a button image that is displayed to the user on the Web site indicating an available incentive. For products that do not have an incentive, the system may generate an invisible button (a 1X1 background color bitmap) that is displayed to the user, but the user does not see any incentive. When the Web site forwards product information to the system, the 15 system may also store the product information in a database so that product preference and brand preference information may be mined from the product information.

Thus, in accordance with the invention, an apparatus embedded into a site for gathering consumer preference information and for displaying an incentive to a consumer that is browsing through one or more products contained on the site is 20 provided wherein the apparatus comprises means for gathering information about the activities of the consumer on the site relating to the one or more products, means for communicating the consumer activity information to a remote incentive system to

determine if an incentive is available for a particular product, and means for displaying an incentive indicator to the consumer, the incentive indicator being invisible to the consumer if there is not an incentive for the particular product and being visible to the user if there is an incentive available for the product.

- 5        In accordance with another aspect of the invention, a method for gathering consumer preference information and for displaying an incentive to a consumer that is browsing through one or more products contained on the site using a user interface element is provided. The method comprises automatically gathering information about the activities of the consumer on the site relating to the one or more products as the
- 10      consumer is browsing through the site, communicating the consumer activity information to a remote incentive system to determine if an incentive is available for a particular product, and displaying an incentive indicator to the consumer, the incentive indicator being invisible to the consumer if there is not an incentive for the particular product and being visible to the user if there is an incentive available for the product.
- 15      In accordance with another aspect of the invention, a system for gathering consumer preference information and for displaying an incentive to a consumer that is browsing through one or more products contained on a site is provided. The system comprises means, embedded in the site, for gathering information about the activities of the consumer on the site relating to the one or more products and means for communicating the consumer activity information to a remote incentive system and means for displaying the incentive indicator on the site to the consumer, the incentive indicator being invisible to the consumer if there is not an incentive for the particular
- 20

product and being visible to the user if there is an incentive available for the product.

The remote incentive system further comprises means for converting the consumer activity data into information about a product, means for comparing the product information to an incentive database to determine if an incentive is available for the

- 5 product and means for generating an incentive indicator.

**Brief Description of the Drawings**

Figure 1 is a diagram illustrating a typical desktop computer system that may interface with an incentive delivery and notification system in accordance with the invention;

- 10 Figure 2 is a diagram illustrating a Web page that includes a conventional banner advertisement and an incentive indicator user interface element in accordance with the invention;

Figure 3 is a diagram illustrating a method for notifying a user of an incentive in accordance with the invention;

- 15 Figure 4 is a block diagram illustrating the data flow of the incentive delivery and notification system for supporting a portal service in accordance with the invention;

Figure 5 is a block diagram illustrating the data flow of the incentive delivery and notification system for supporting shopping analysis in accordance with the invention;

Figure 6 is a block diagram illustrating the data flow of the incentive delivery  
5 and notification system for supporting promotion delivery in accordance with the invention; and

Figure 7 is a diagram illustrating an example of a shopping site that interfaces with the promotion delivery and notification system in accordance with the invention.

#### Detailed Description of a Preferred Embodiment

10 The invention is particularly applicable to, but not limited to, a desktop computer based incentive delivery and notification system that uses an incentive indicator, such as a user interface button, for incentive notification and it is in this context that the invention will be described. It will be appreciated, however, that the system and method in accordance with the invention has greater utility since it may be  
15 implemented using other types of user interfaces and computer networks and the notification mechanism for the incentives may be changed. For instance, the incentive system may also support other computing devices like handheld computers, PDAs, Set-top boxes and other Internet-enabled appliances.

Figure 1 is a diagram illustrating a typical desktop computer system 20 that  
20 may access a web site 22 connected to an incentive delivery and notification system 24

- in accordance with the invention. The Web site 22 may be a typical Web site that provides a user with information about one or more products that may be reviewed and/or purchased on the Web site. The Web site may thus be any type of typical e-commerce shopping or product review site. The web site 22 may include a central
- 5 processing unit (CPU) 25 that controls the operation of the web site, a web page database 26 containing one or more web pages that may be displayed to a user accessing the web site, and incentive logic 28 that may be embedded into a web page generated by the web site 22, as described in more detail below, to permit an incentive, where applicable, to be shown to the user. The incentive system 24 may include an
- 10 incentive database 30 that contains one or more records indicating products that have an associated incentive. If there is a match between the product information, generated based on the clickstream information provided by the Web site 22, with an incentive in the incentive database, then that incentive is displayed to a user. The operation of the incentive system is described in more detail below with reference to Figure 3.
- 15 One or more users may connect to the web site 22 using a typical computer network 40 that may be the Internet, the World Wide Web, local area network, a wide area network, a wireless network and the like. The users may use one or more desktop client computers (typically personal computers) 42 (Client #1, Client #2 and Client #N) to connect to the web site 22 over the computer network. Each client computer
- 20 (Client #N only will be described here) may include a typical display 44 that may be a liquid crystal display, a cathode ray tube or the like, a central unit 46 and one or more input/output devices 48 that permit the user to interact with the software applications

being executed by the computer. In this example, the input devices may include a keyboard 50 and a mouse 52, but may also include other peripherals, such as printers and the like. The central unit 46 may further include a central processing unit (CPU) 54 that controls the operation of the computer and executes software applications that

5 may be stored in a persistent storage device 56 or a memory 58. The persistent storage device stores one or more software applications permanently unless erased and may include hard disks, removable disks, optical disks and the like. The memory 58 may be typically volatile in that the contents of the memory is lost when the computer is turned off. Typically, a software application may be stored in the persistent storage

10 device normally and then loaded into the memory when the software application is executed by the CPU. For example, a typical browser application 60 is shown in the memory in this example since the browser application is being used to access the web site 22 and display web pages being generated by the web site.

In operation, a user may access the web site using the browser application

15 directed to a uniform resource locator (URL) of the web site and browse for a product or category of products. The web site may forward clickstream information (that may include, for example, cookie information, URL information, SKU information) to the incentive system. The incentive system may process the clickstream information to generate information about the products being viewed by the consumer at the web site.

20 The incentive system may attempt to match the product to an incentive. If an incentive exists for the particular product, an incentive notification user interface element is displayed on the web page being displayed on the user's display 44.

Otherwise, the user does not see any incentive. Now, the difference between a typical banner advertisement and the incentive notification in accordance with the invention will be described in more detail.

Figure 2 is a diagram illustrating a Web page 70 that includes a conventional  
5 banner advertisement 72 and an incentive notification user interface element 74 in accordance with the invention. The typical banner advertisement 72 may, when the user completes an search request with one or more search keywords, for example, forward the keyboards to a web ad server 76 that searches an advertisement database and then returns an image of an advertisement and the destination URL for the  
10 advertisement so that the advertisement is displayed as a banner to the user. The user may then click on the advertisement and be taken to the destination URL of the advertisement.

The incentive user interface element 74 may operate differently than the banner advertisement. In particular, each web page 70 may include some HTML code  
15 embedded into the Web page where the user interface element 74 may appear. As the user browses through the Web page and selects one or more products, the clickstream is captured by a piece of software code embedded into the web pages of the web site wherein the clickstream may include information about those products, such as a cookie, the URL, the uniform product code (UPC) or the stock keeping unit (SKU)  
20 number, are communicated to the incentive system 24. The incentive system 24 may convert the clickstream information, if necessary, into product information (e.g., UPC

or SKU information) and then search the incentive database 30 based on the product information to determine if an incentive exists for each product. The system may also store the product information in a database to generate various reports, such as brand preference reports, so that the incentive system may provide incentives as well as

5 generating information about the products being reviewed by the user. For each product with an associated incentive, the system communicates an image of an incentive indicator user interface element, such as a user interface button, to the web site that generated the web page so that the element 74 is displayed to the user on the web page. For products that do not have an incentive, the system forwards a

10 transparent incentive indicator (e.g. ,a 1X1 transparent pixel image) to the web site so that the web site displays no incentive button to the user. If the user clicks on the incentive button, the user is connected to a web site that permits the user to take advantage of the incentive. In this manner, unlike the banner advertisements, the embedded code and the incentive indicator may collect product browsing information

15 from the user while the user browses through products as well as displaying an incentive to the user viewing the web page if an incentive is available for a particular product. A method for incentive delivery and notification in accordance with the invention will now be described with reference to Figure 3.

Figure 3 is a diagram illustrating a method 80 for notifying a user of an

20 incentive in accordance with the invention. In general, a web site that has signed up for the incentive service, may be browsed by a user 82 using a client user interface (UI) such as a browser user interface. As the user browses the site and particular products

on the site, the web site may send a clickstream including specific product information, such as the SKU or manufacturer part number, in step 83 to an incentive system 84 (referred to as a PromoServer in this example) to check on the availability of an incentive for a particular product. The incentive system may then perform a search in

5 the incentive database (not shown) to determine if an incentive is available in step 86. If the particular product has an associated incentive, then the incentive system returns an incentive indication image in step 88 that is displayed on the web page being viewed by the user. In the embodiment described herein, the incentive indication image may be a user interface button, but it may also be any other user interface

10 element indicating that an incentive is available in connection with the product. An example of the incentive indication element is shown in Figure 7 which will be described below. If no incentive is available for a particular product, then, in step 90, a transparent incentive indicator image (e.g., 1X1 pixel image that matches the background) is communicated back to the web site. The image (either the transparent

15 image or the visible incentive indicator) is displayed on the web site. Since the user does not see the transparent image, the user does not see any incentive. If the user clicks on the visible incentive indicator, a user interface permitting the user to sign up and redeem the incentive is displayed. The attributes of the incentive can be determined dynamically at run-time based user's clickstream history and brand

20 preference. Now, several embodiments of the incentive system integrated into particular systems will be described.

Figure 4 is a block diagram illustrating the data flow of the incentive delivery and notification system for supporting a portal service in accordance with the invention. In particular, a web site 100, such as a merchant partner web site, may, for every product viewed by the user, transmit a clickstream 102 to the incentive system

5    24. The clickstream may include, for example, the address of the web site (URL), a cookie indicating other URLs and actions taken by the user, and the SKU number of the product being viewed. The clickstream may be used to determine if an incentive is available for the particular product. In some cases, the incentive system determines the product information based on the clickstream. The incentive system may also store the

10    data about the product in a campaign tracking database 104 so that the incentive system may generate a report indicating the statistics about any incentive campaign being run by the incentive system for a merchant or product manufacturer.

Based on the information in the clickstream, the incentive system 24 may provide different information to one or more services of a portal business. For

15    example, the URL from the clickstream may be communicated to a desktop shopping service 106 in which the URL of the clickstream is matched to a SKU number for a product in order to determine the product preference of the user that is accessing that URL to determine if an incentive is appropriate. As another example, the cookie from the clickstream may be passed onto a personal shopping service 108 and the shopping

20    service 108 may extract one or more URLs from the cookie information to determine the one or more sites visited by the user. The personal shopping service may then store those URLs in a database so that it can return the user to the URL(s) quickly. As yet

another example, the SKU information from the clickstream may be forwarded to a comparison shopping service 110 and the comparison shopping service 110 may match the SKU number to one or more URL addresses so that the comparison shopping site can determine other locations where the user may find the product being offered. Now, 5 the incentive system providing information to a data warehousing business will be described in more detail.

Figure 5 is a block diagram illustrating the data flow of the incentive delivery and notification system for supporting shopping analysis in accordance with the invention. In particular, a web site 120, such as a merchant partner web site, may, for 10 every product viewed by the user, transmit a clickstream 122 to the incentive system 24. The clickstream may include, for example, the address of the web site (URL), a cookie indicating other URLs and actions taken by the user, and/or the SKU number of the product being viewed. The clickstream may be used to determine a product being viewed and if an incentive is available for the particular product and for other analysis 15 as described below. The incentive system may also store the data about the product in a campaign tracking database 124 so that the incentive system may generate a report indicating the statistics about any incentive campaign being run by the incentive system for a merchant or product manufacturer.

Based on the information in the clickstream, the incentive system 24 may 20 provide different information to one or more data warehousing services for shopping analysis. For example, the clickstream may be communicated to a consumer

preference analyzer 126 in which the consumer preference information is categorized by product category, brand and SKU. As another example, the clickstream may be passed onto another consumer preference analyzer 128 to determine consumer preferences that are analyzed across each merchant. As yet another example, the 5 clickstream may be forwarded to a price/promotion impact analysis service 130 in order to determine when the preferences of consumers changes based on the price and the incentives/promotions being provided. The preference change may be used, for example, by the merchant to determine the optimal amount of incentive/price to provide to a user/consume to receive the most consumer preference for the amount of 10 money being spent on the incentives. Thus, the data warehousing services may help the merchant to determine various information about the current promotions/incentives being provided to the user. Now, the incentive system providing information to a promotion/incentive delivery system will be described in more detail.

Figure 6 is a block diagram illustrating the data flow of the incentive delivery 15 and notification system for supporting promotion delivery in accordance with the invention. In particular, a web site 140, such as a merchant partner web site, may, for every product viewed by the user, transmit a clickstream 142 to the incentive system 24. The clickstream may include, for example, the address of the web site (URL), a cookie indicating other URLs and actions taken by the user, and/or the SKU number of 20 the product being viewed. The clickstream may be used to determine the product information and to determine if an incentive is available for the particular product and for other analysis as described below. The incentive system may also store the data

about the product in a campaign tracking database 144 so that the incentive system may generate a report indicating the statistics about any incentive campaign being run by the incentive system for a merchant or product manufacturer. Based on the information in the clickstream, the incentive system 24 may return an

5 incentive/promotion 146 to the web site so that the user is notified of the incentive/promotion.

Based on the information in the clickstream, the incentive system 24 may provide different information to one or more promotion services. For example, the clickstream may be communicated to a promotion database 148 in which the

10 information in the clickstream or generated based on the clickstream, such as the SKU for example, is compared to the promotion database to determine if there is a promotion available for the particular product. As another example, the clickstream may be passed onto a personal shopping history database 150 to store the user's shopping history that may be used, in the future, to determine future promotions or

15 incentives. For example, a user with a loyalty to a particular brand may be given a larger incentive to ensure that the user stays with the brand. The information in the clickstream may also be communicated to a campaign rules database 152 in which the promotion service determines if there are any campaign rules applicable to the user's clickstream. For example, the campaign rules may alter a promotion/incentive based

20 on some information in the clickstream. Now, an example of a shopping site that includes the incentive system will be described in more detail.

Figure 7 is a diagram illustrating an example of a shopping site 160 that includes the promotion delivery and notification system in accordance with the invention. In this example, the web site 160 is a product comparison site in which various products in various categories, such as computers, monitors and printers, may

5 be compared to each other. In the example shown, the user has selected to review the Toshiba® computers available at the site. As shown, a price is listed for each Toshiba® computer. As the user selects the Toshiba® computers, the SKU information for each computer is passed onto the incentive system. The incentive system returns either, a visible incentive/promotion indicator if an incentive/promotion

10 is available for the product or an invisible/transparent incentive indicator (e.g., a 1X1 pixel image) that the user does not see. As shown in Figure 7, one of the computers has an incentive/promotion so an incentive/promotion indicator 162 is displayed next to the price of the computer. If the user clicks on the incentive/promotion indicator, then the user is presented with information about how to redeem the incentive. If an

15 item does not have a promotion currently, then the user simply sees the product's price with no incentive/promotion indicator. In both cases, there is software code embedded in the web page that gathers information about the products being viewed by the user and then may or may not display an incentive/promotion indicator.

While the foregoing has been with reference to a particular embodiment of the

20 invention, it will be appreciated by those skilled in the art that changes in this embodiment may be made without departing from the principles and spirit of the invention, the scope of which is defined by the appended claims.

Claims:

1. An apparatus embedded into a site for gathering consumer preference information and for displaying an incentive to a consumer that is browsing through one or more products contained on the site, the apparatus comprising:
  - 4 means for gathering information about the activities of the consumer on the site relating to the one or more products;
  - 6 means for communicating the consumer activity information to a remote incentive system to determine if an incentive is available for a particular product; and
  - 8 means for displaying an incentive indicator to the consumer, the incentive indicator being invisible to the consumer if there is not an incentive for the particular product and being visible to the user if there is an incentive available for the product.
1. The apparatus of Claim 1, wherein the consumer activity information comprises clickstream data and wherein the gathering means further comprises means for automatically capturing the clickstream data.
1. The apparatus of Claim 2, wherein the consumer activity information further comprises one or more of uniform resource locators (URLs), a uniform product code (UPC), a stock keeping unit (SKU) number, and a cookie.
1. The apparatus of Claim 1, wherein the displaying means further comprises means for receiving a transparent incentive indicator if no incentive is available for the product and means for receiving a button indicating that an incentive is available for the product.

1           5.       The system of Claim 4, wherein the incentive indicator is a user  
2       interface element that the consumer may interact with in order to indicate an interest in  
3       the incentive.

1           6.       The system of Claim 5, wherein the user interface element comprises a  
2       clickable graphics.

1           7.       A method for gathering consumer preference information and for  
2       displaying an incentive to a consumer that is browsing through one or more products  
3       contained on the site using a user interface element, the method comprising:

4           automatically gathering information about the activities of the consumer on the  
5       site relating to the one or more products as the consumer is browsing through the site;

6           communicating the consumer activity information to a remote incentive system  
7       to determine if an incentive is available for a particular product; and

8           displaying an incentive indicator to the consumer, the incentive indicator being  
9       invisible to the consumer if there is not an incentive for the particular product and  
10      being visible to the user if there is an incentive available for the product.

1           8.       The method of Claim 7, wherein the consumer activity information  
2       comprises clickstream data and wherein the gathering further comprises automatically  
3       capturing the clickstream data.

1           9.       The method of Claim 8, wherein the consumer activity information  
2      further comprises one or more of uniform resource locators (URLs), a uniform product  
3      code (UPC), a stock keeping unit (SKU) number, and a cookie.

1           10.      The method of Claim 7, wherein the displaying further comprises  
2      receiving a transparent incentive indicator if no incentive is available for the product  
3      and receiving a button indicating that an incentive is available for the product.

1           11.      The system of Claim 10, wherein the incentive indicator is a user  
2      interface element that the consumer may interact with in order to indicate an interest in  
3      the incentive.

1           12.      The system of Claim 11, wherein the user interface element comprises a  
2      clickable graphics

1           13.      A system for gathering consumer preference information and for  
2      displaying an incentive to a consumer that is browsing through one or more products  
3      contained on a site, the system comprising:

4           means, embedded in the site, for gathering information about the activities of  
5      the consumer on the site relating to the one or more products;

6           means for communicating the consumer activity information to a remote  
7      incentive system;

8           the remote incentive system comprising means for converting the consumer  
9      activity data into information about a product, means for comparing the product

10 information to an incentive database to determine if an incentive is available for the  
11 product and means for generating an incentive indicator;  
12 means for displaying the incentive indicator on the site to the consumer, the  
13 incentive indicator being invisible to the consumer if there is not an incentive for the  
14 particular product and being visible to the user if there is an incentive available for the  
15 product.

1 14. The system of Claim 13, wherein the consumer activity information  
2 comprises clickstream data and wherein the gathering means further comprises means  
3 for automatically capturing the clickstream data.

1 15. The system of Claim 14, wherein the consumer activity information  
2 further comprises one or more of uniform resource locators (URLs), a uniform product  
3 code (UPC), a stock keeping unit (SKU) number, and a cookie.

1 16. The system of Claim 13, wherein the displaying means further  
2 comprises means for receiving a transparent incentive indicator if no incentive is  
3 available for the product and means for receiving a button indicating that an incentive  
4 is available for the product.

1 17. The system of Claim 16, wherein the incentive indicator is a user  
2 interface element that the consumer may interact with in order to indicate an interest in  
3 the incentive.

1 18. The system of Claim 17, wherein the user interface element comprises a  
2 clickable graphics.

1           19.     The system of Claim 15, wherein the remote incentive site further  
2     comprises means for mapping the information in the cookie into one or more URLs  
3     visited by the consumer, the URLs being stored in a personal shopping service.

1           20.     The system of Claim 15, wherein the remote incentive site further  
2     comprises means for mapping the information in the SKU number to a URL of the site  
3     where the product is located, the URL being stored in a comparison shopping service.

1           21.     The system of Claim 15, wherein the remote incentive site further  
2     comprises means for determining a consumer preference based on the SKU  
3     information.

22.     The system of Claim 15, wherein the remote incentive site further  
5     comprises means for generating preference change information based on the consumer  
activity information in order to determine the impact of one or more of a price and an  
incentive on the preference of consumer's for the product.

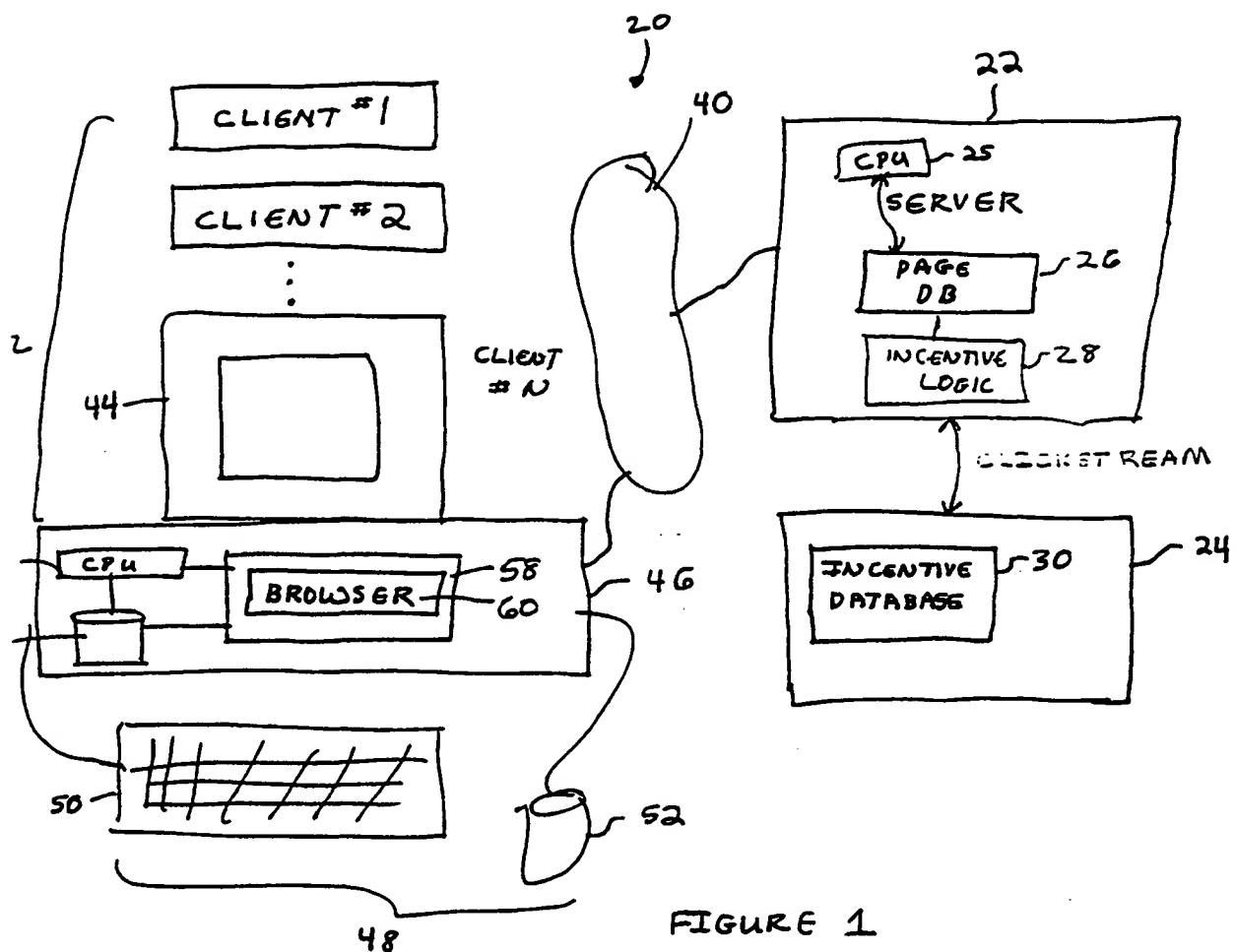


FIGURE 1

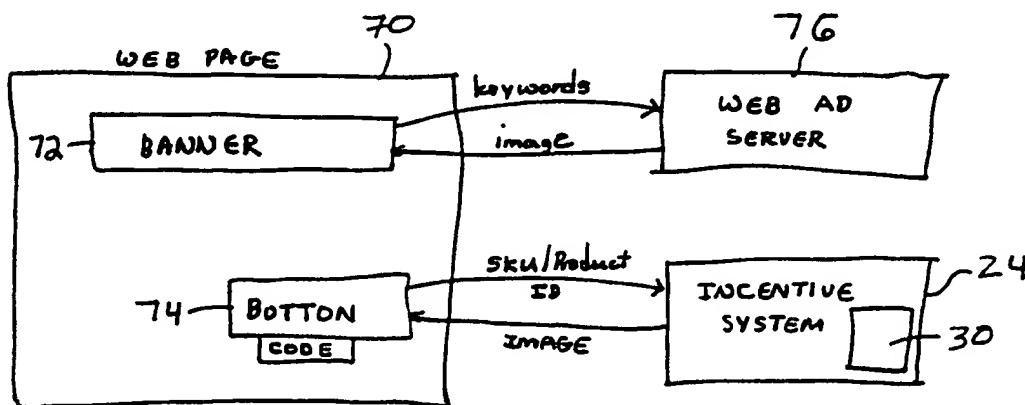


FIGURE 2

Our partners can check availability of promotions for a specific product by sending the SKU or manufacturer part number to the GotSavings server. The GotSavings server will perform a search in the promotion database with the SKU. A GotSavings image is returned if there is any promotion available for that specific product. Otherwise a 1x1-pixel transparent image is returned.

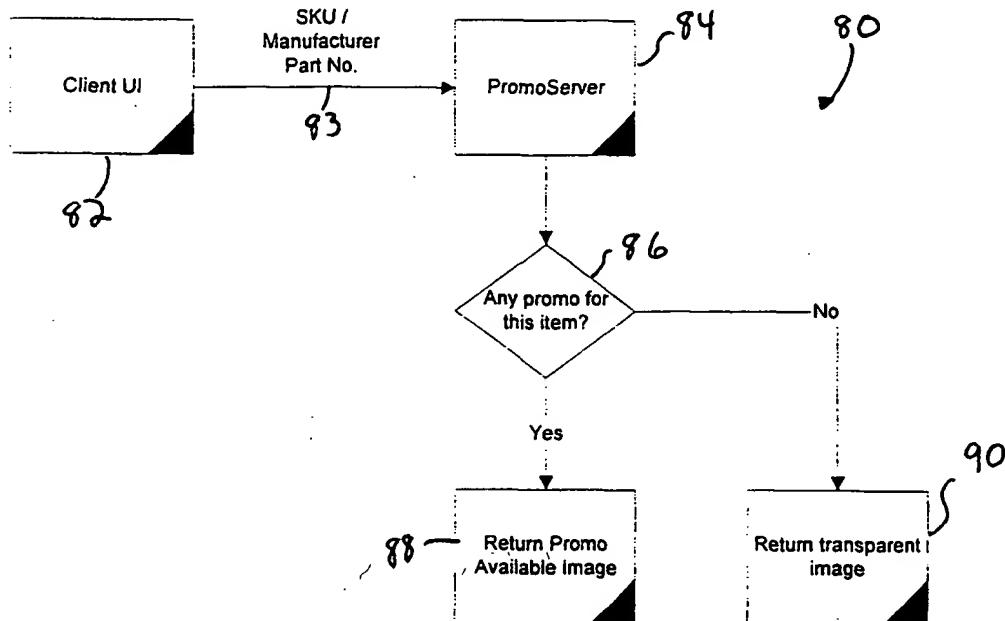


FIGURE 3

## Data Flows supporting portal services

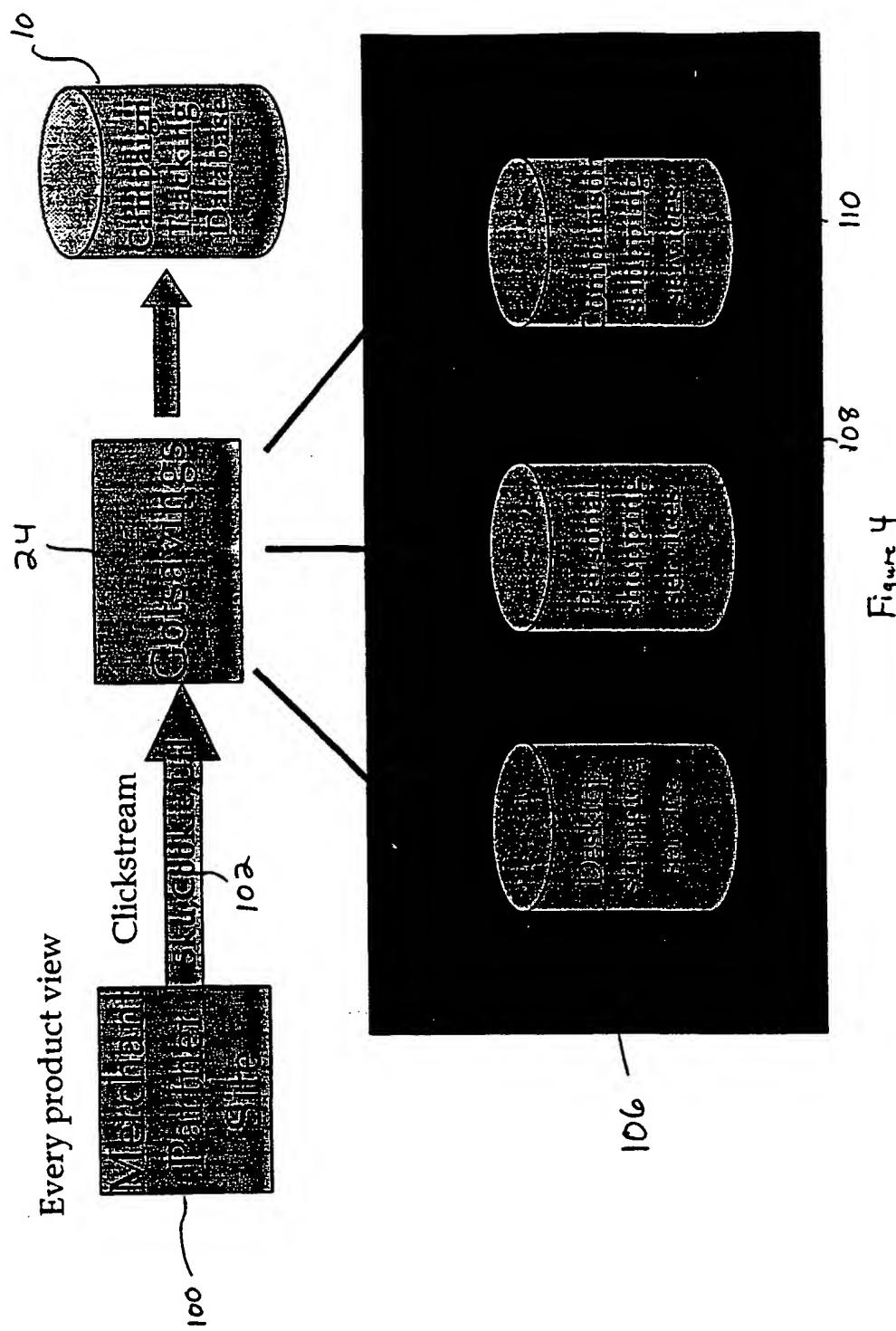
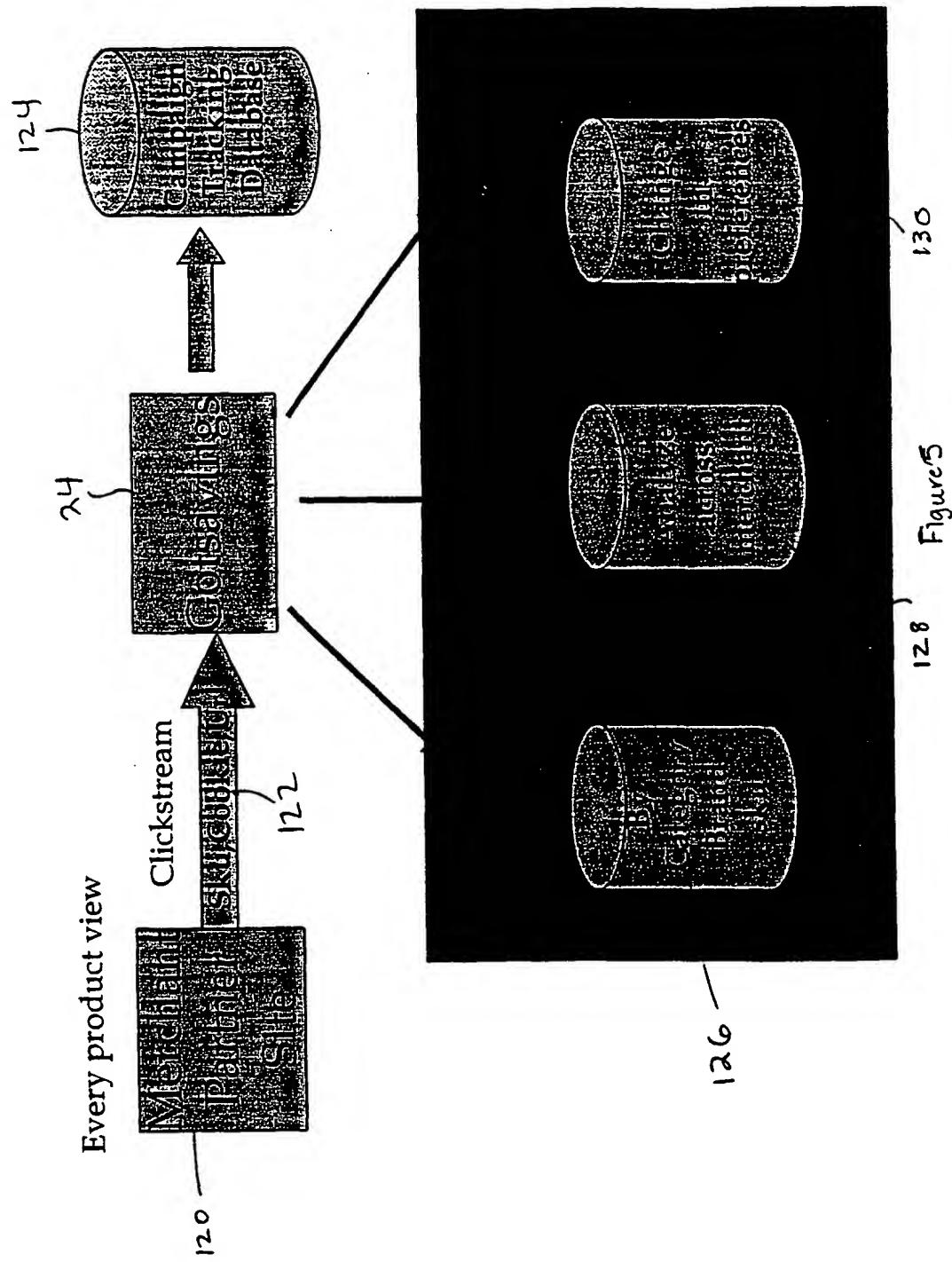


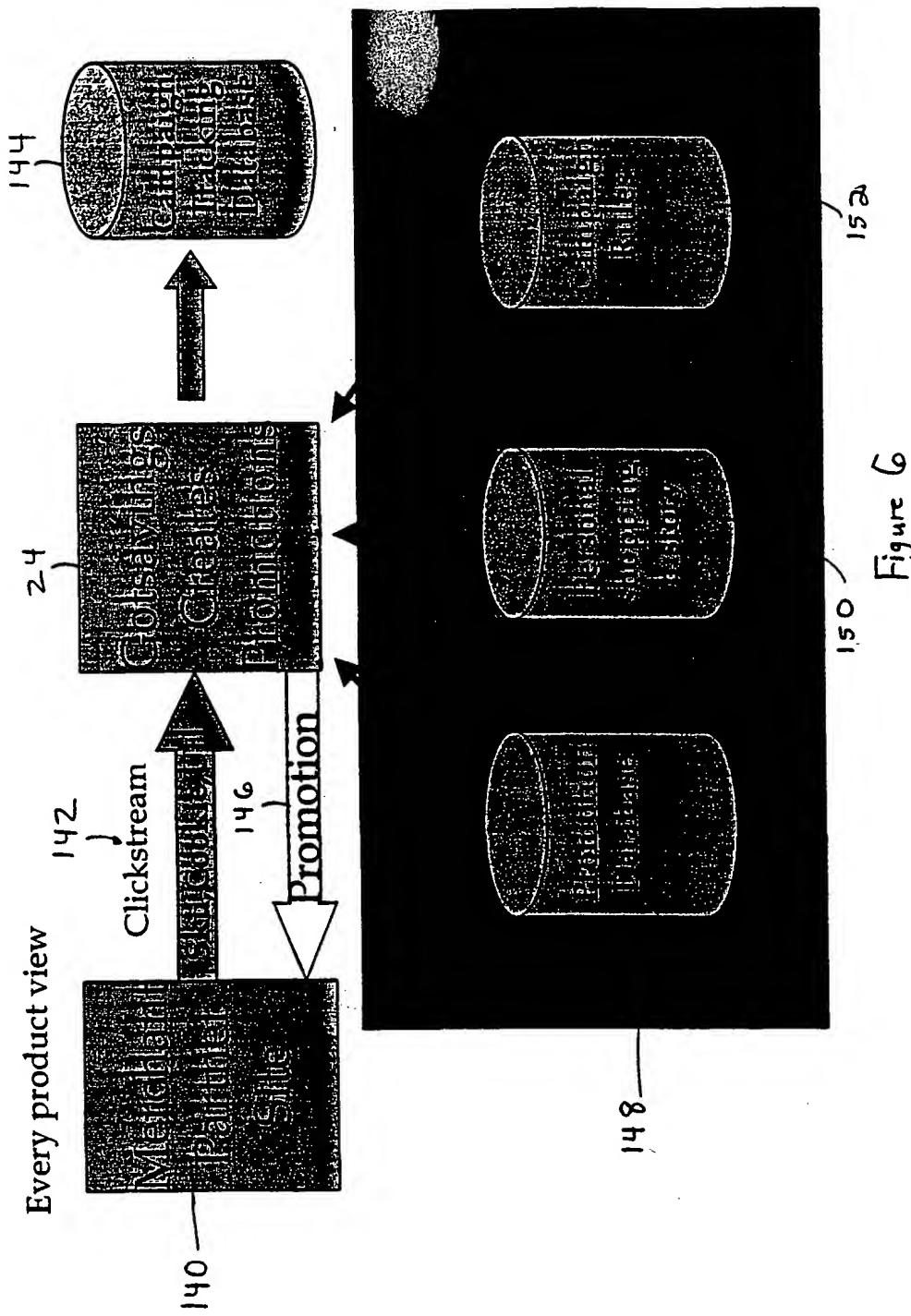
Figure 4

# Data Flows supporting shopping analysis



128      Figures 5

# Data Flows supporting promotion delivery



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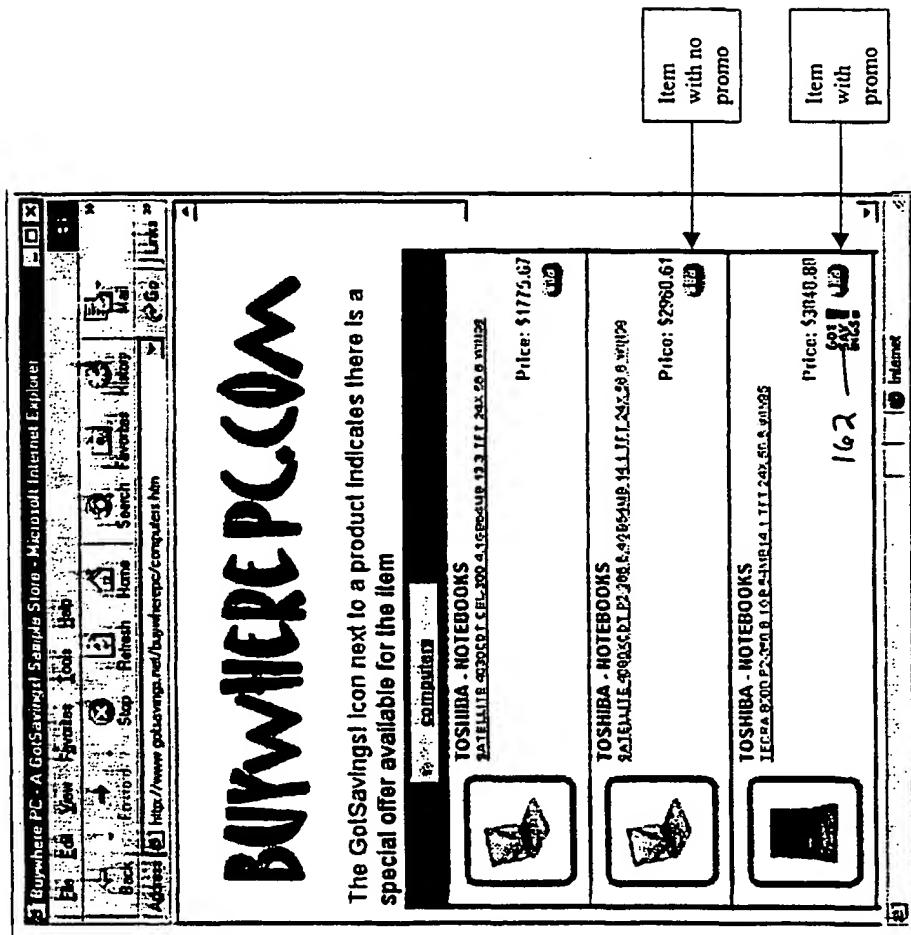
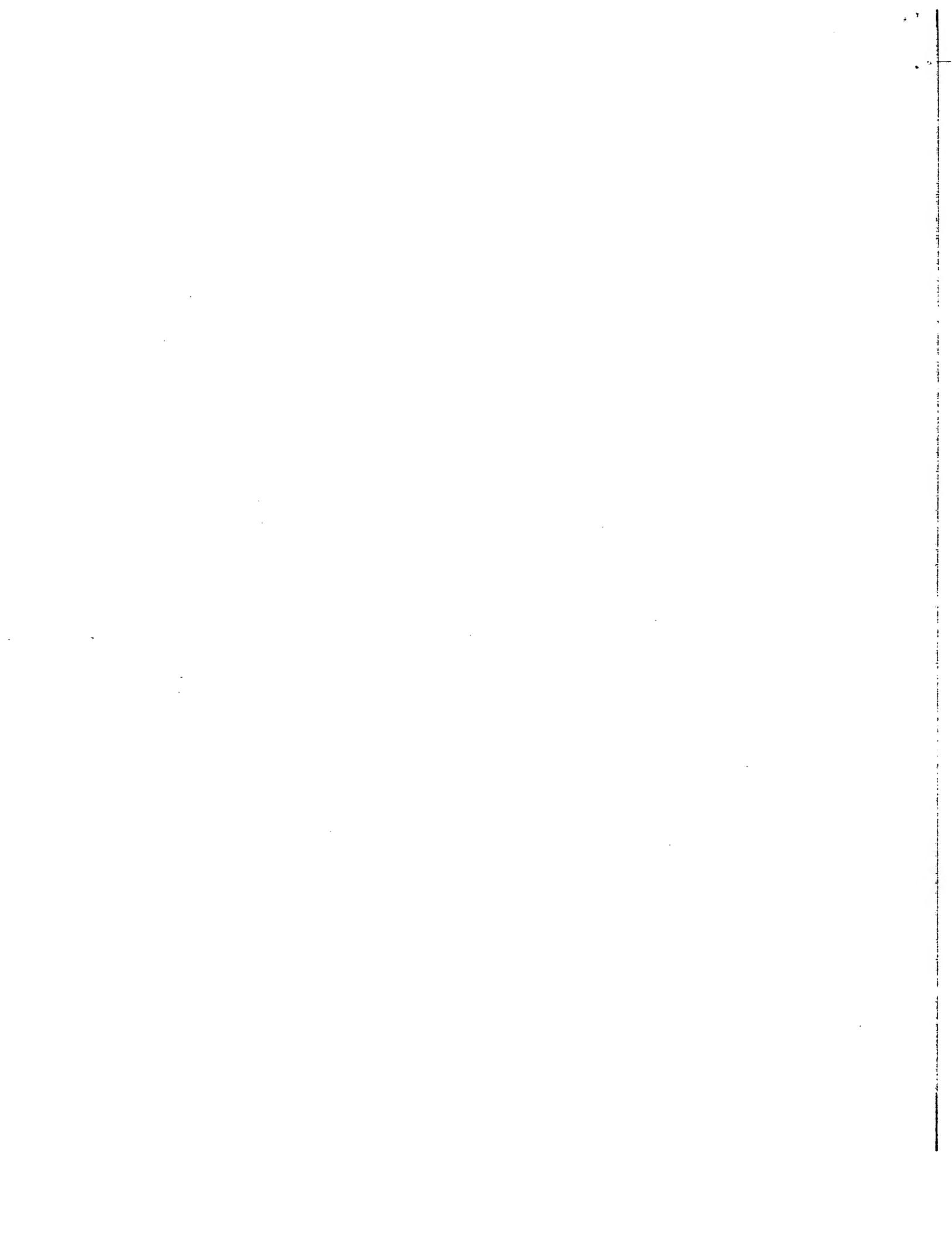


Figure 7





## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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(74) Agent:	LOHSE, Timothy, W.; Gray Cary Ware & Freidenrich LLP, Attn: Patent Department, 400 Hamilton Avenue, Palo Alto, CA 94301-1825 (US).		

(54) Title: INCENTIVE DELIVERY AND NOTIFICATION SYSTEM AND METHOD

## (57) Abstract

A system and method for gathering consumer preference information about a particular product or brand wherein an incentive indicator is displayed on a web page if an incentive is available to the user for a particular product.

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International application No.  
PCT/US99/28102

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(7) :G06F 17/60, 13/14  
US CL :705/14, 10

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**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,812,769 A (GRABER et al) 22 September 1998, col 3, lines 15-34; col 5, line 56 - col 6, line 22; and col 10, lines 48-55.	1-22
Y	US 5,717,860 A (GRABER et al) 10 February 1998, col 3, lines 13-32; col 5, line 55 - col 6, line 21; and col 10, lines 47-54.	1-22
Y	US 5,710,886 A (CHRISTENSEN et al) 20 January 1998, col 8, lines 44-49 and col 17, lines 12-17.	4-6, 10-12, 16-18, and 21-22
Y,P	US 5,970,469 A (SCROGGIE et al) 19 October 1999, col 2, lines 8-13; col 2, line 66 - col 3, line 13; col 4, lines 39-50; col 7, line 22 - col 8, line 51; and col 12, line 7 - col 13, line 46.	1, 2, 4-8, 10-14, and 16-22

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